



Risk management and estimation of drought impact in Hungarian Agriculture

Gábor Kemény – András Molnár



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Role of AKI

- collecting Hungarian Agricultural Risk Management System (MKR) data
- processing data and publishing
- supporting monitoring and decision making by the Ministry of Agriculture



Outline of the presentation

The operation of (MKR) 2012 to 2017

- Structure
- Operation of the Pillar 1.
- Operation of the Pillar 2.

Estimation of drought impact on Hungarian Agriculture

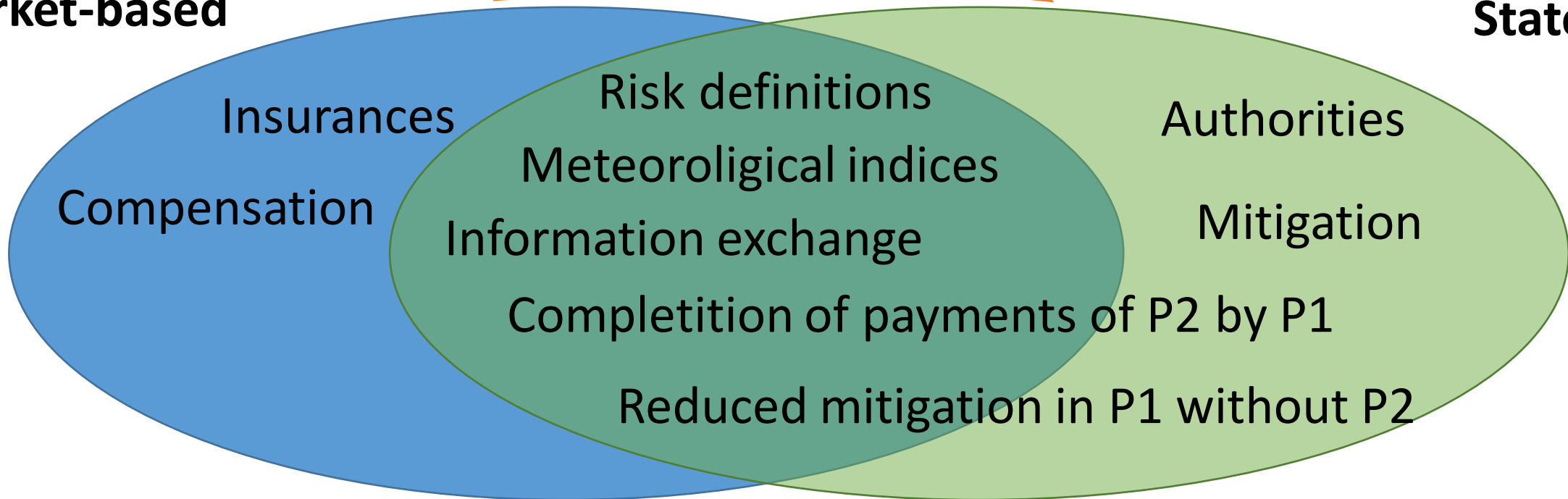
Structure and operation of the MKR

Structure of the MKR

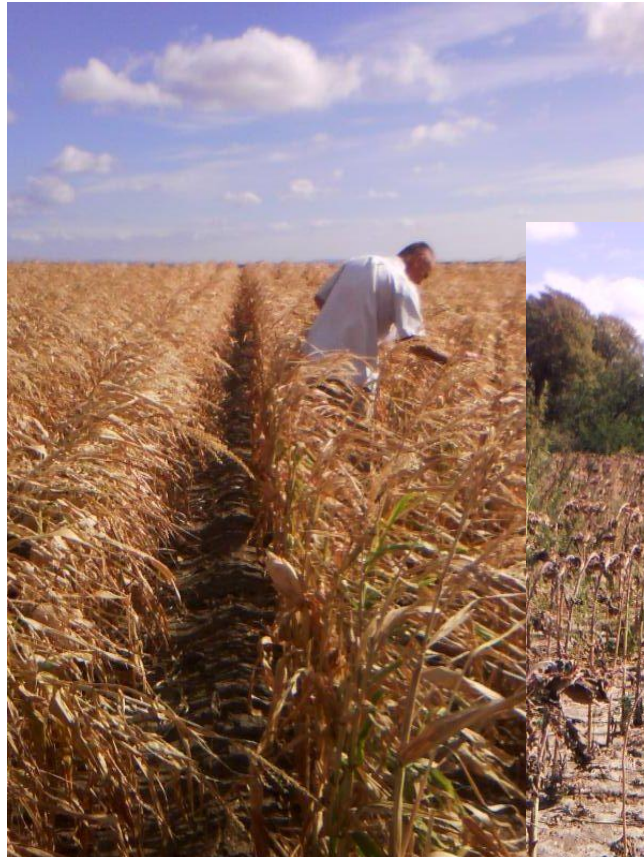
**Pillar 2. –
voluntary
Market-based**

Farmers

**Pillar 1. –
compulsory
State-based**



Risks covered by MKR



Maize, August 2011

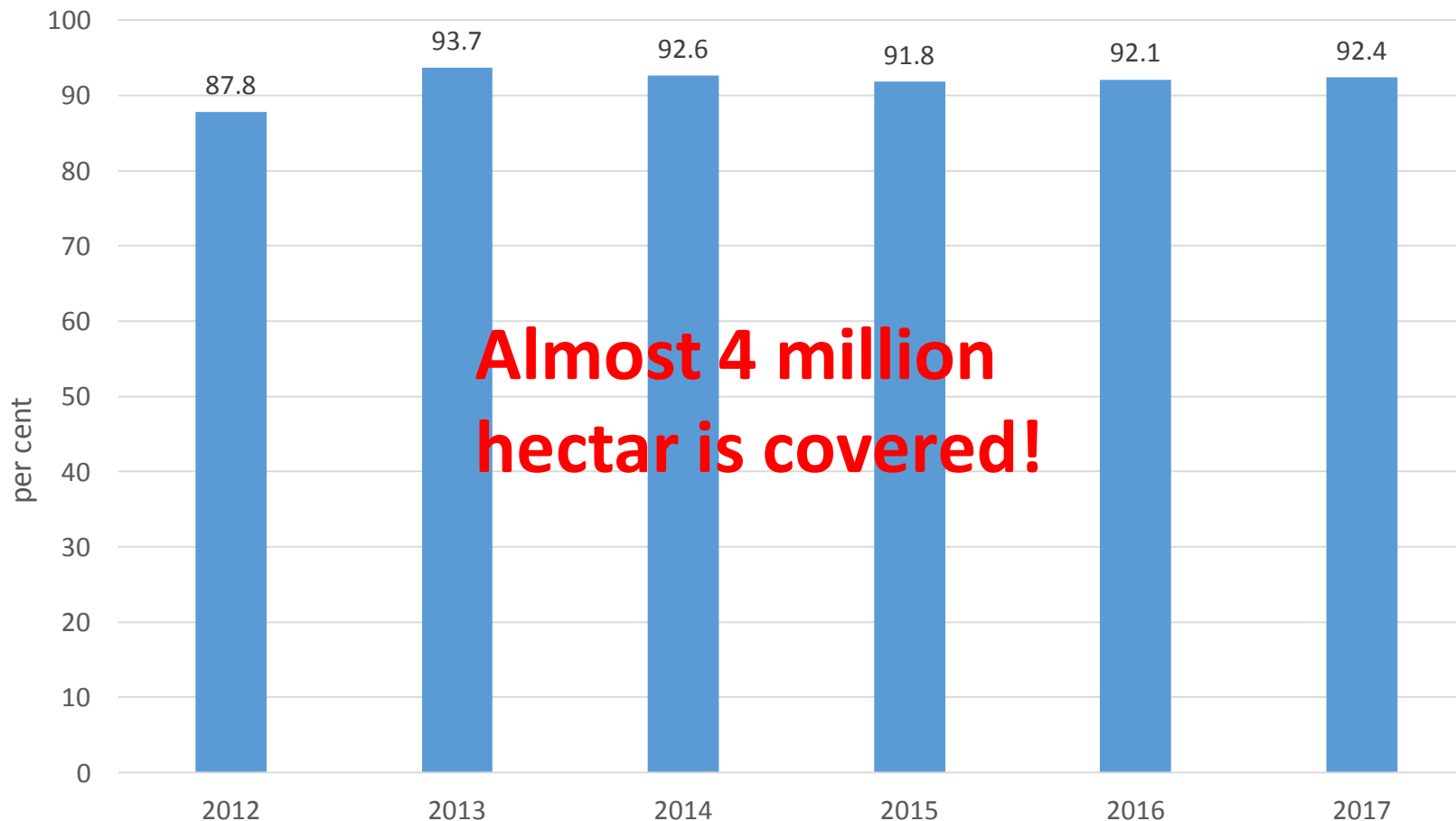
Sunflower, August 2011



Risks	Hail, Storm, Fire	Winter/spring frost	Drought	Heavy rain, flood	Inland water
Pillar 1.	>15% crop value level, >30% crop yield level				
Pillar 2.	>30% crop yield level	>50% crop yield level	>50% crop yield level	>40% crop yield level	-
Private added insurance	>5% to <30% crop level	-	-	-	-

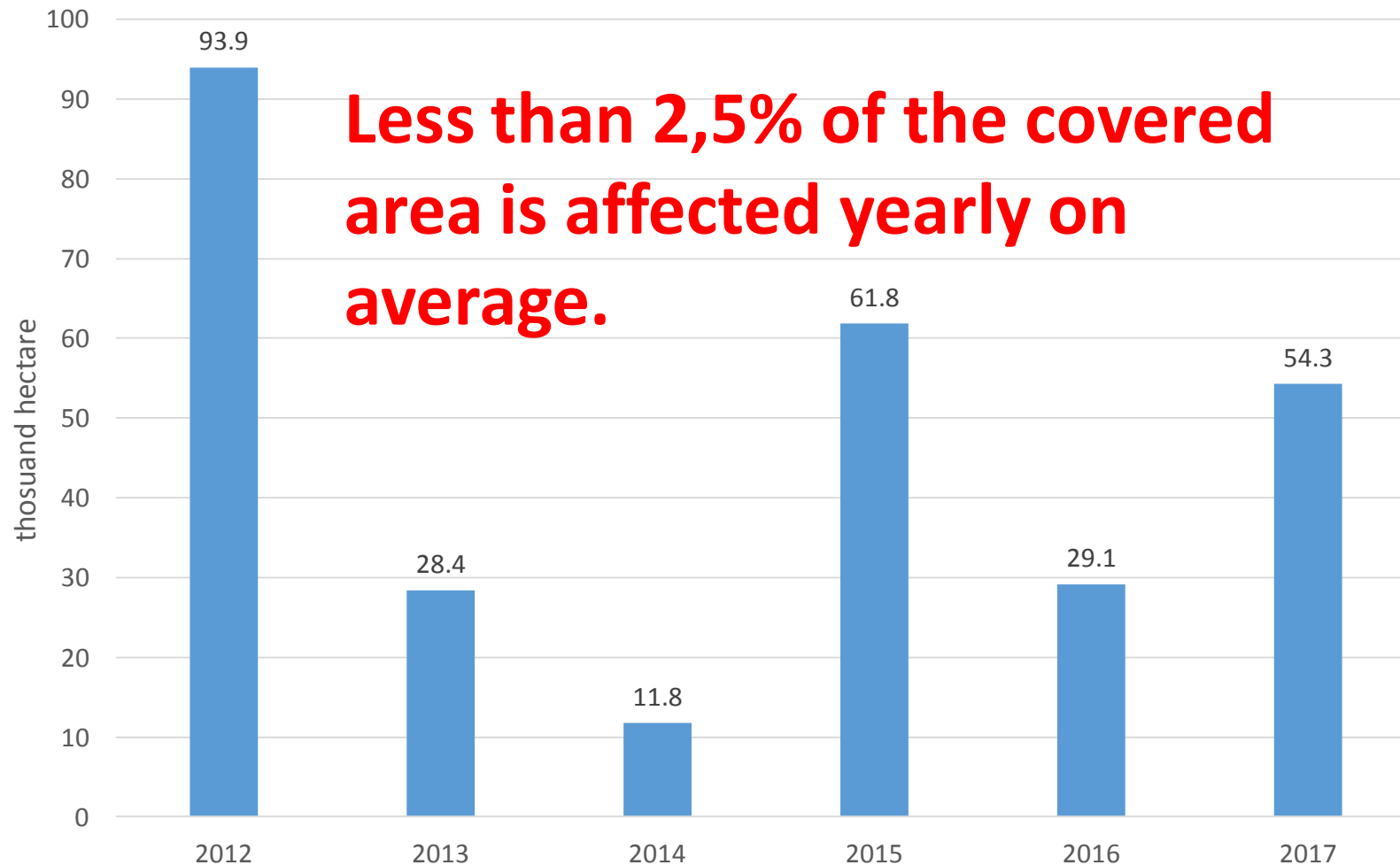
Operation of Pillar 1. 2012 to 2017

Penetration in Pillar 1.



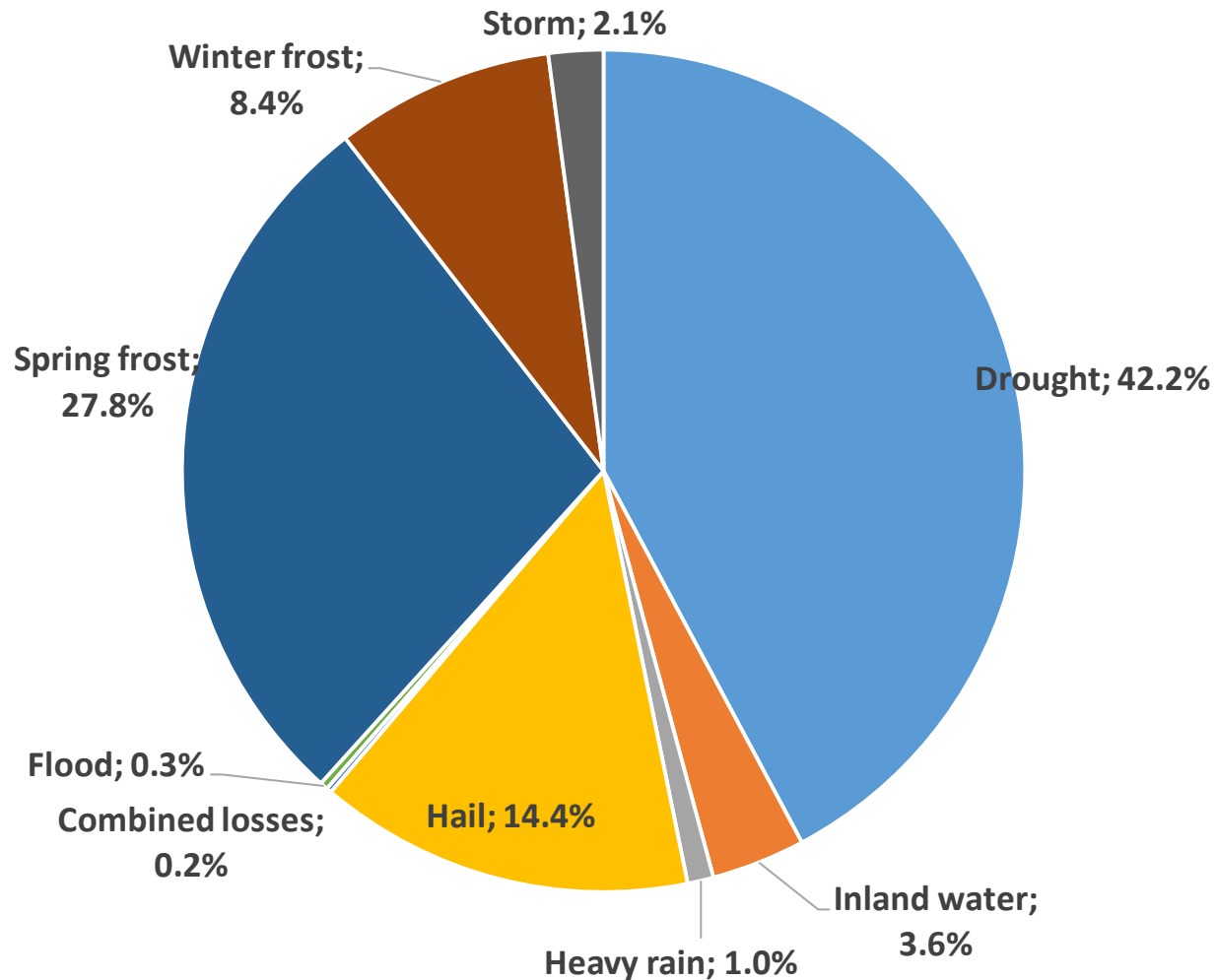
- **Compulsory** participation
- Members are **65-70** per cent of agricultural producers
- **92.4 per cent** of the agricultural area in 2017

Damaged area in case of Pillar 1.



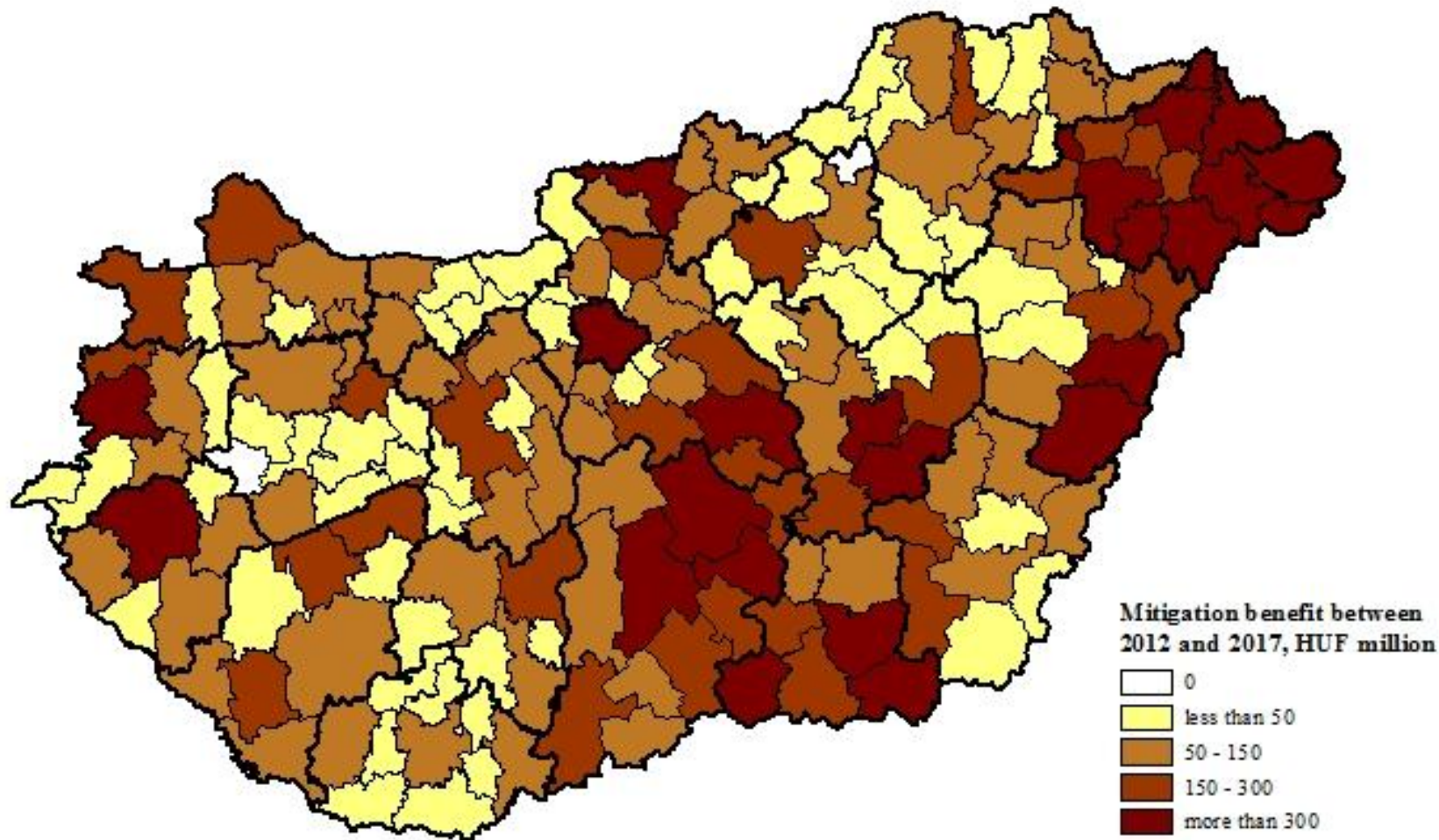
- the weather conditions were favourable in this period
- That is why the conditions of mitigation benefits have been softened since 2015 in order to pay off the producers

Mitigation benefits by risks (2012-2017)



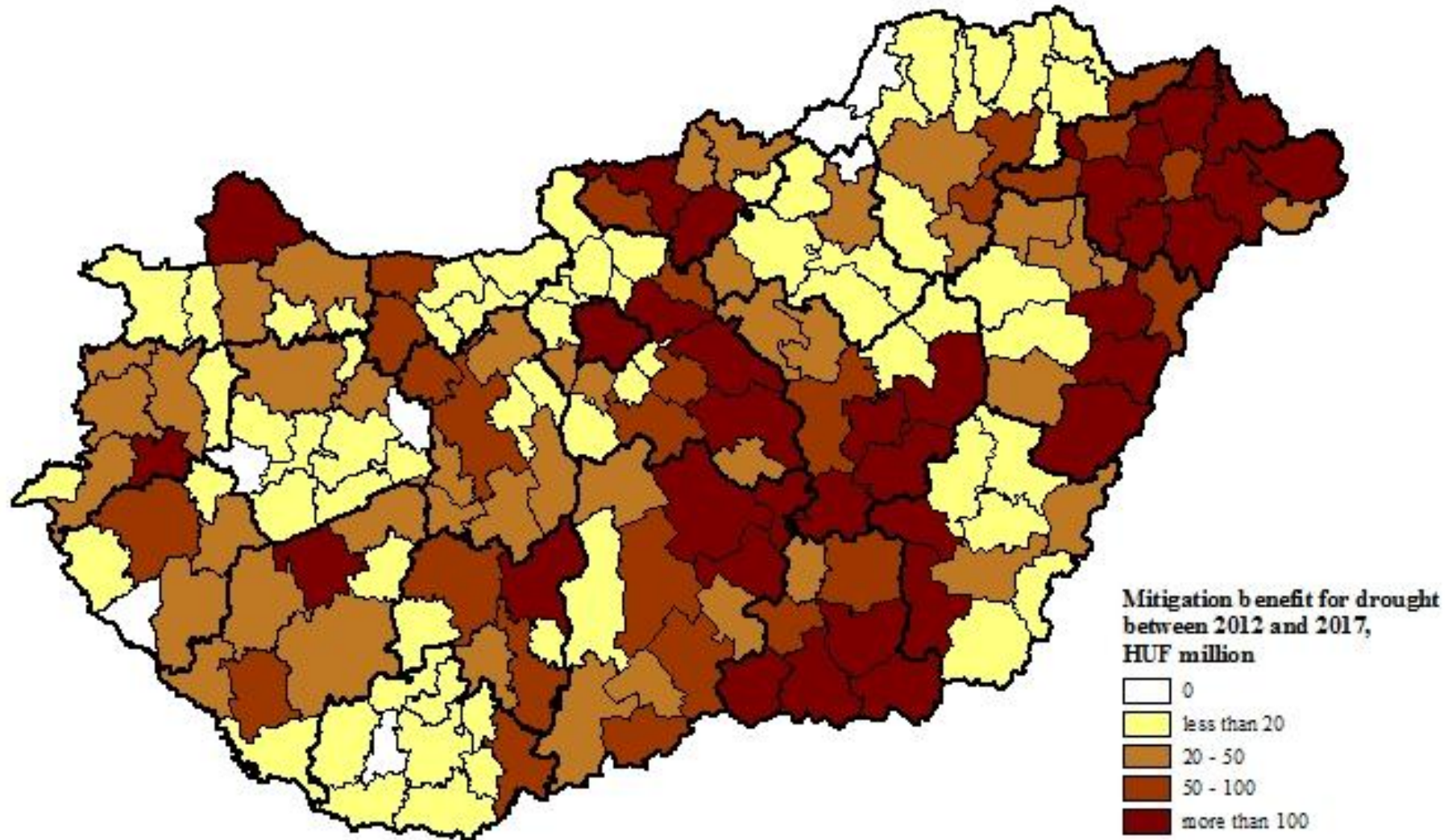
- Drought is the most common risk in Hungary in Pillar 1.
- Spring frost is the second one

Mitigation benefits by districts (2012-2017)

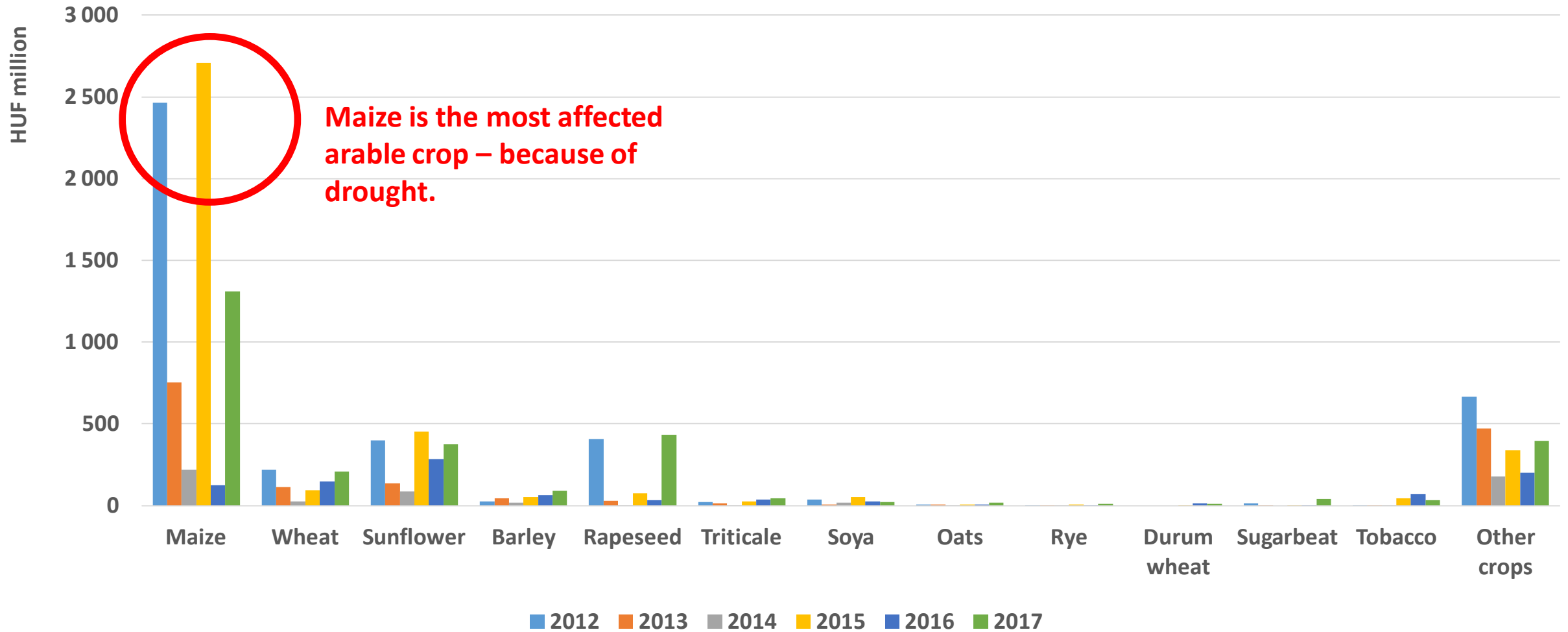


- Eastern Hungary and the central part of Great Plain are the most affected areas

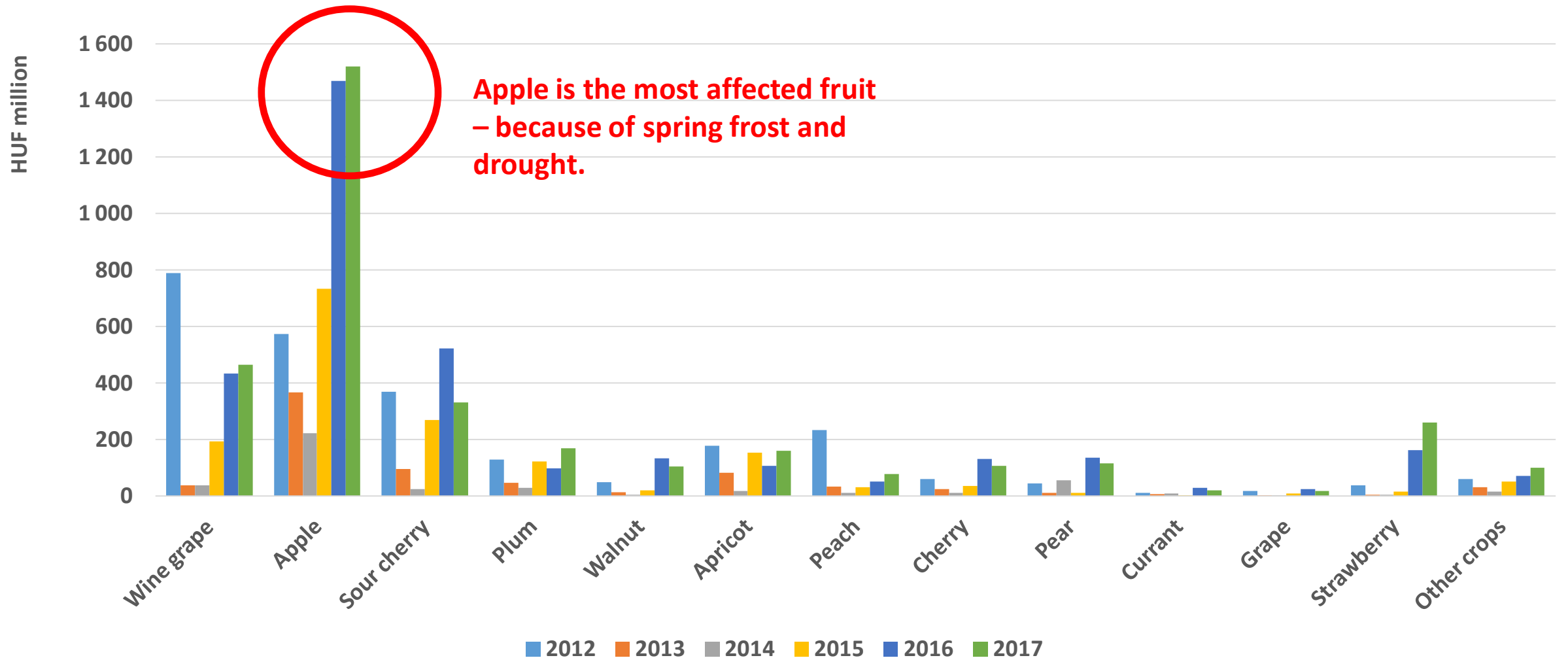
Mitigation benefits for drought (2012-2017)



Mitigation benefits in case of arable crops

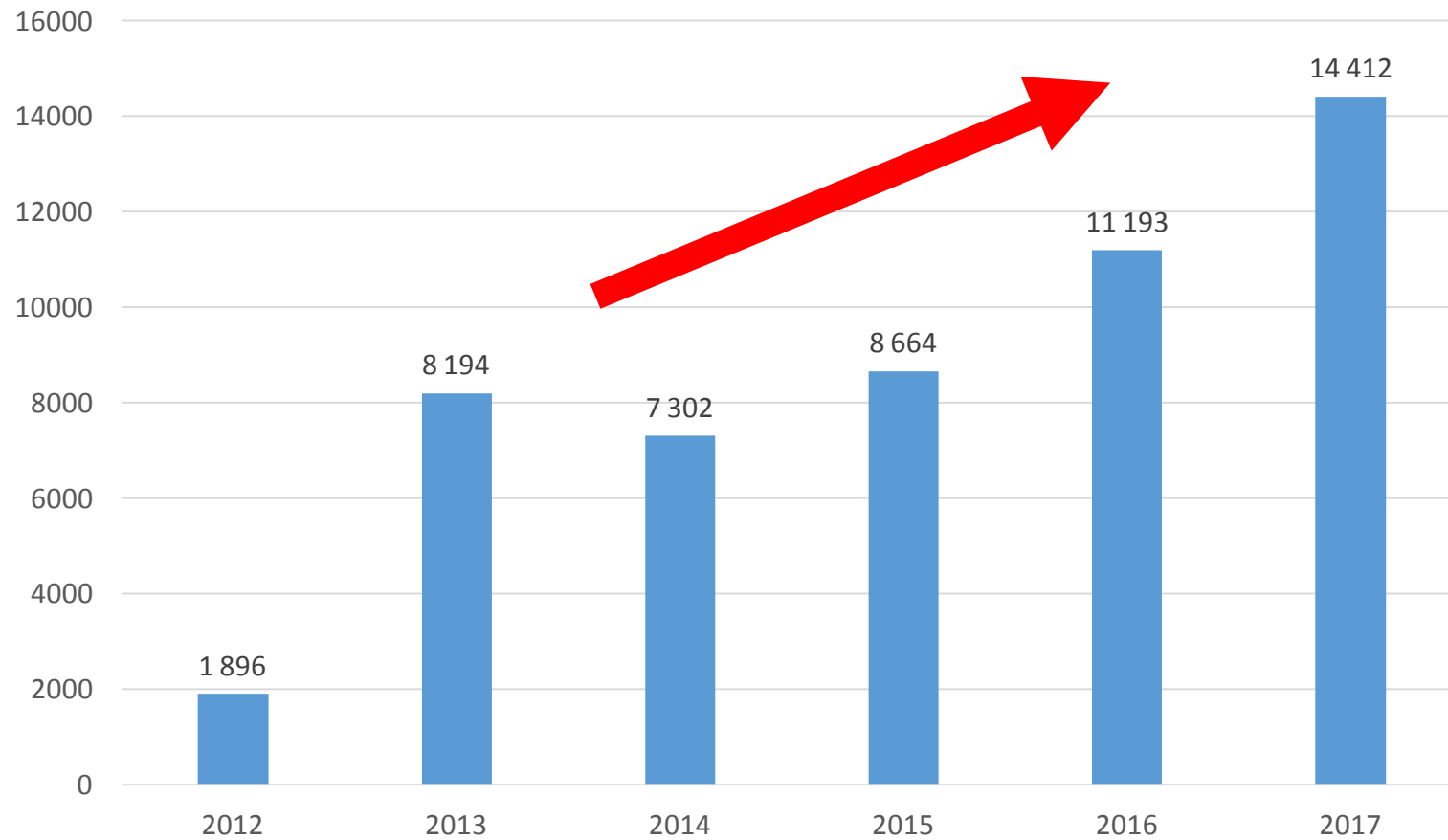


Mitigation benefits in case of fruits



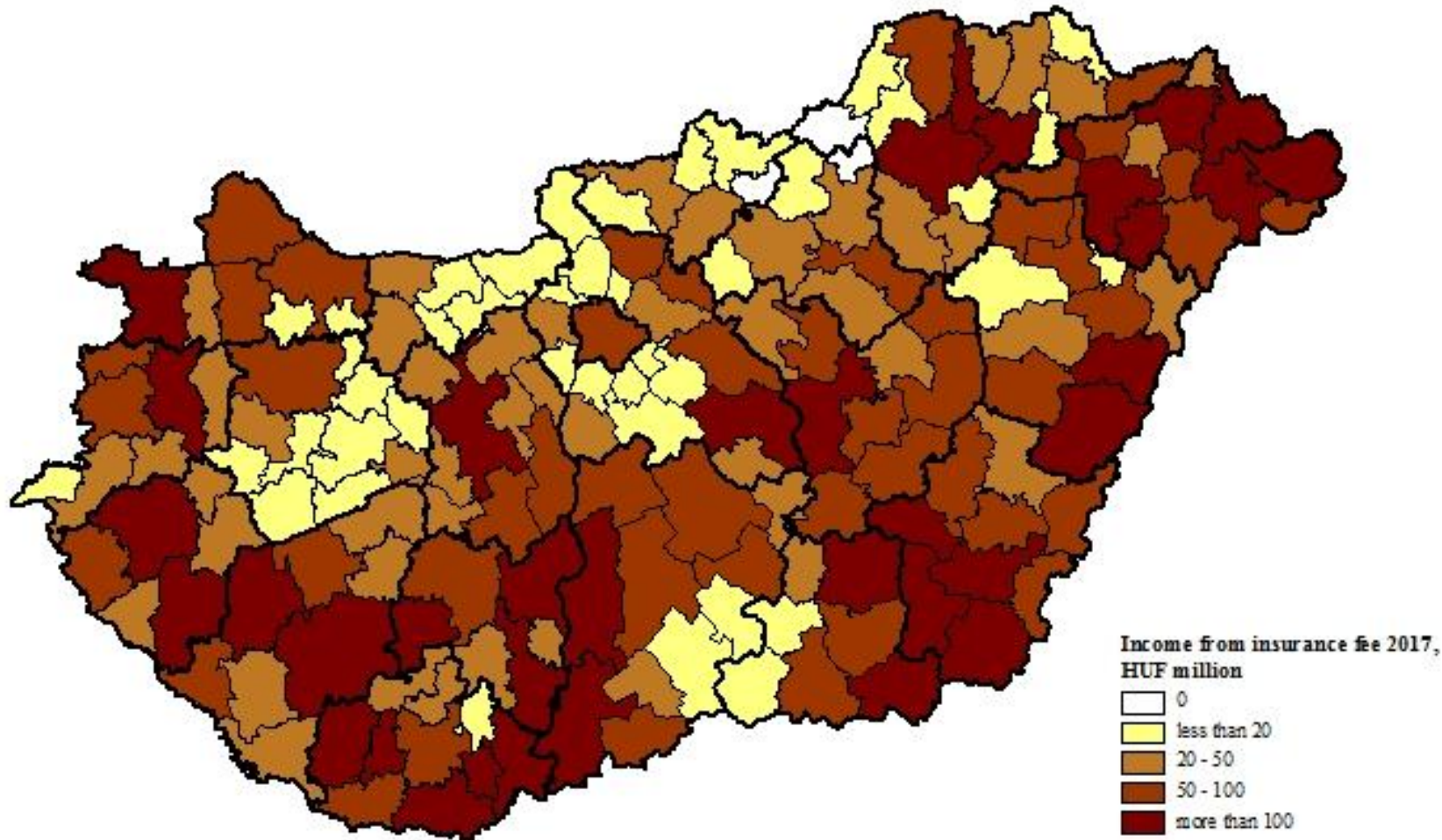
Operation of the Pillar 2. 2012 and 2017

Penetration in Pillar 2.



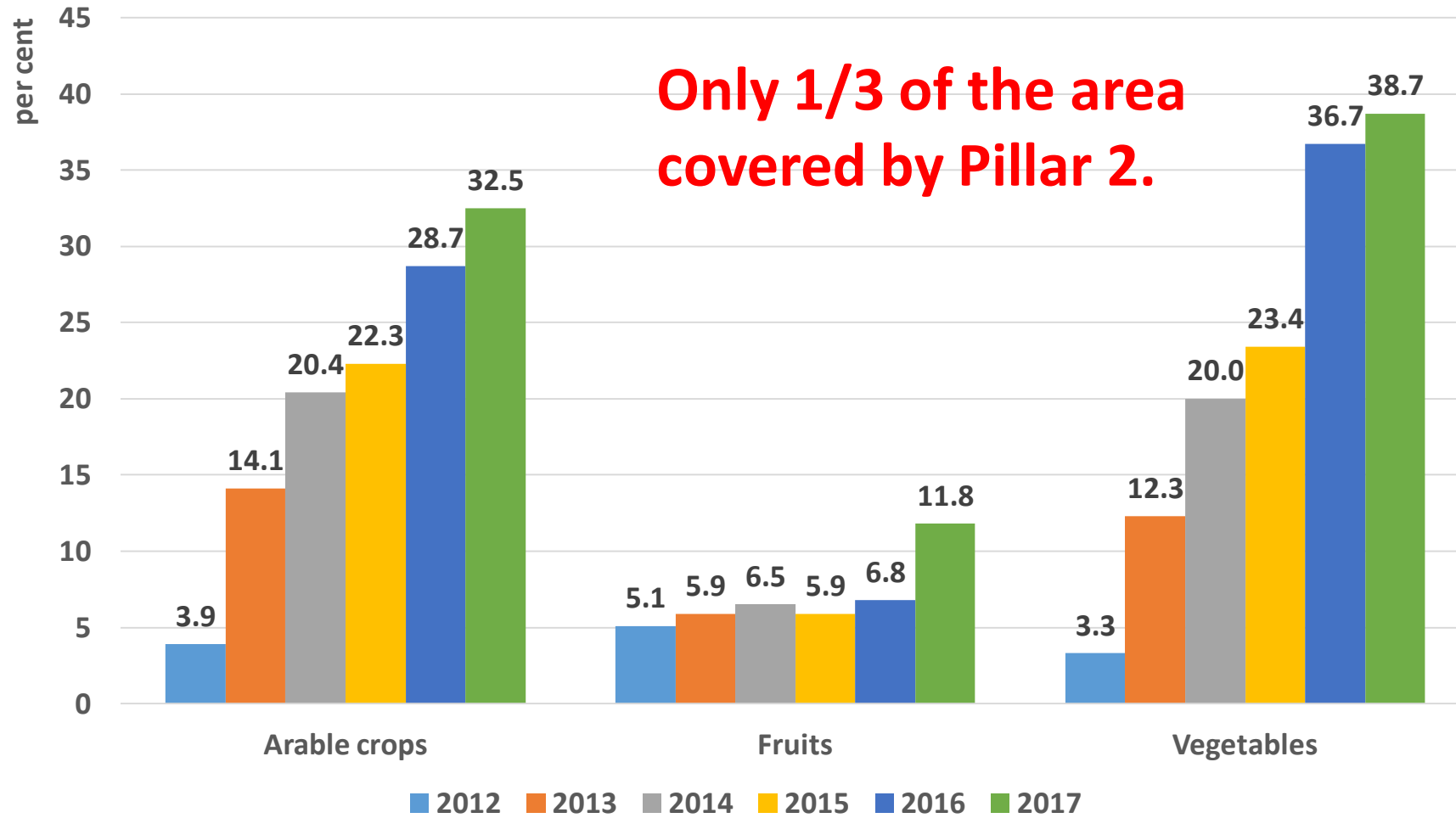
- Number of insurance contracts significantly increased
- Dynamic increase in 2013, in 2016 and in 2017

Revenue from insurance fees by districts in 2017



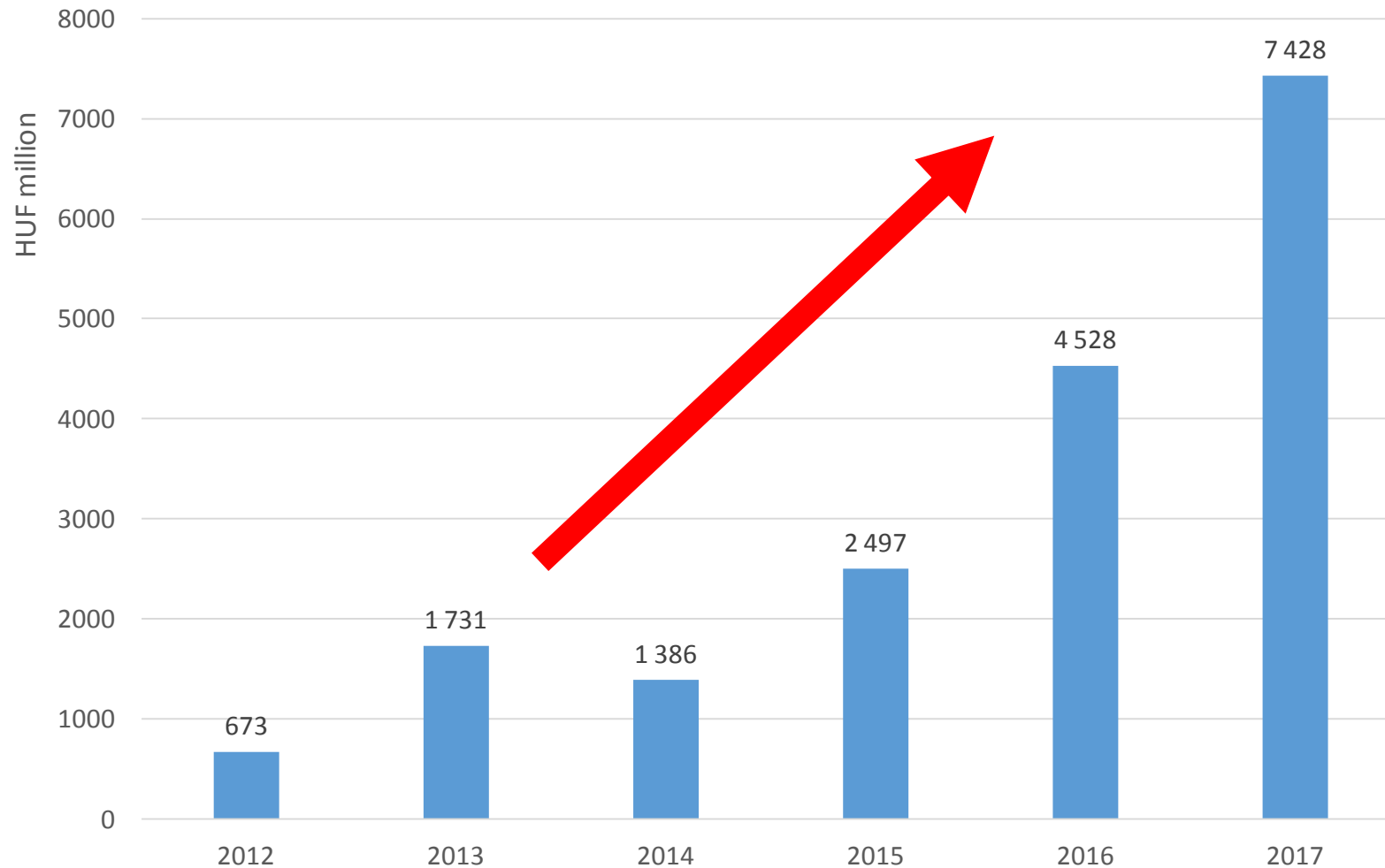
- Supported insurance has spread across the country.

Share of arable crops, fruits, vegetables



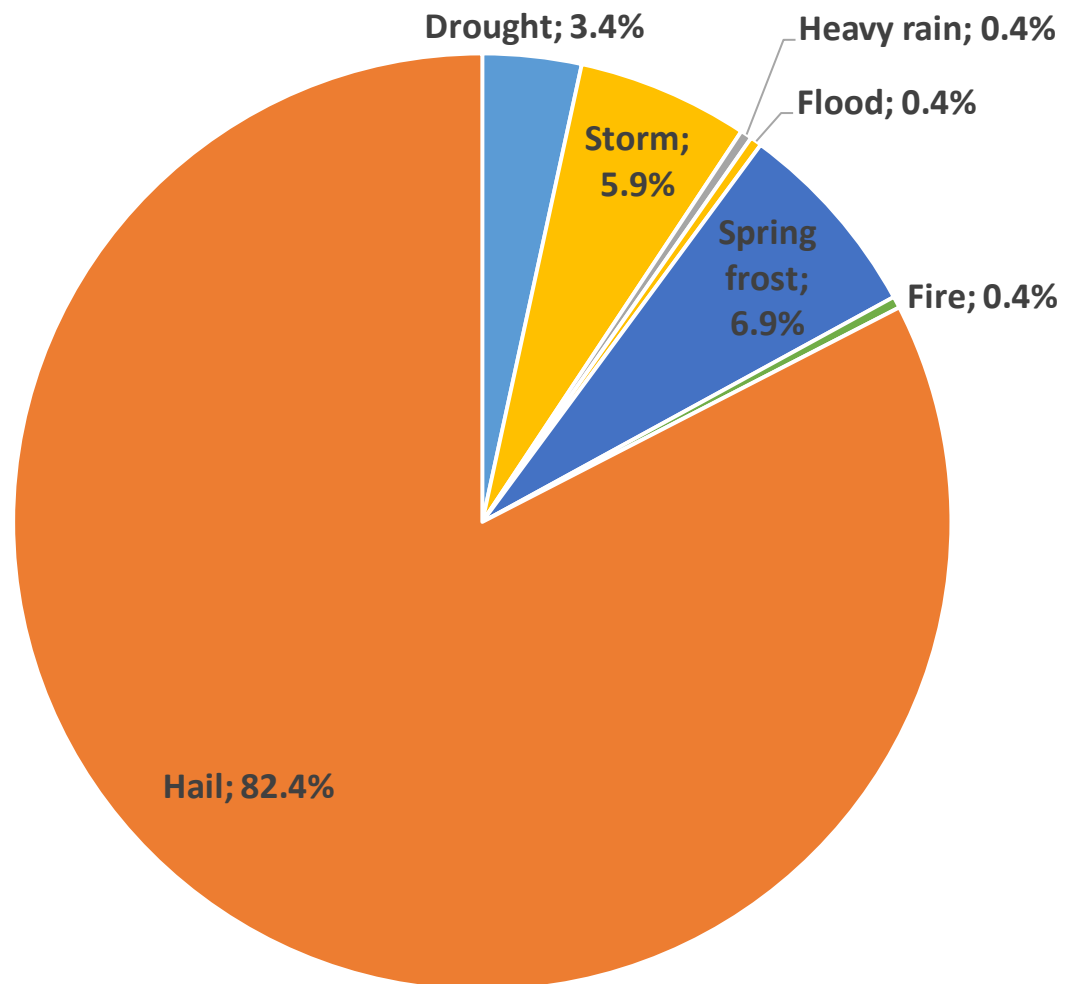
- Increasing coverage of each category
- Fruits have the lowest coverage

Compensations (by insurance)



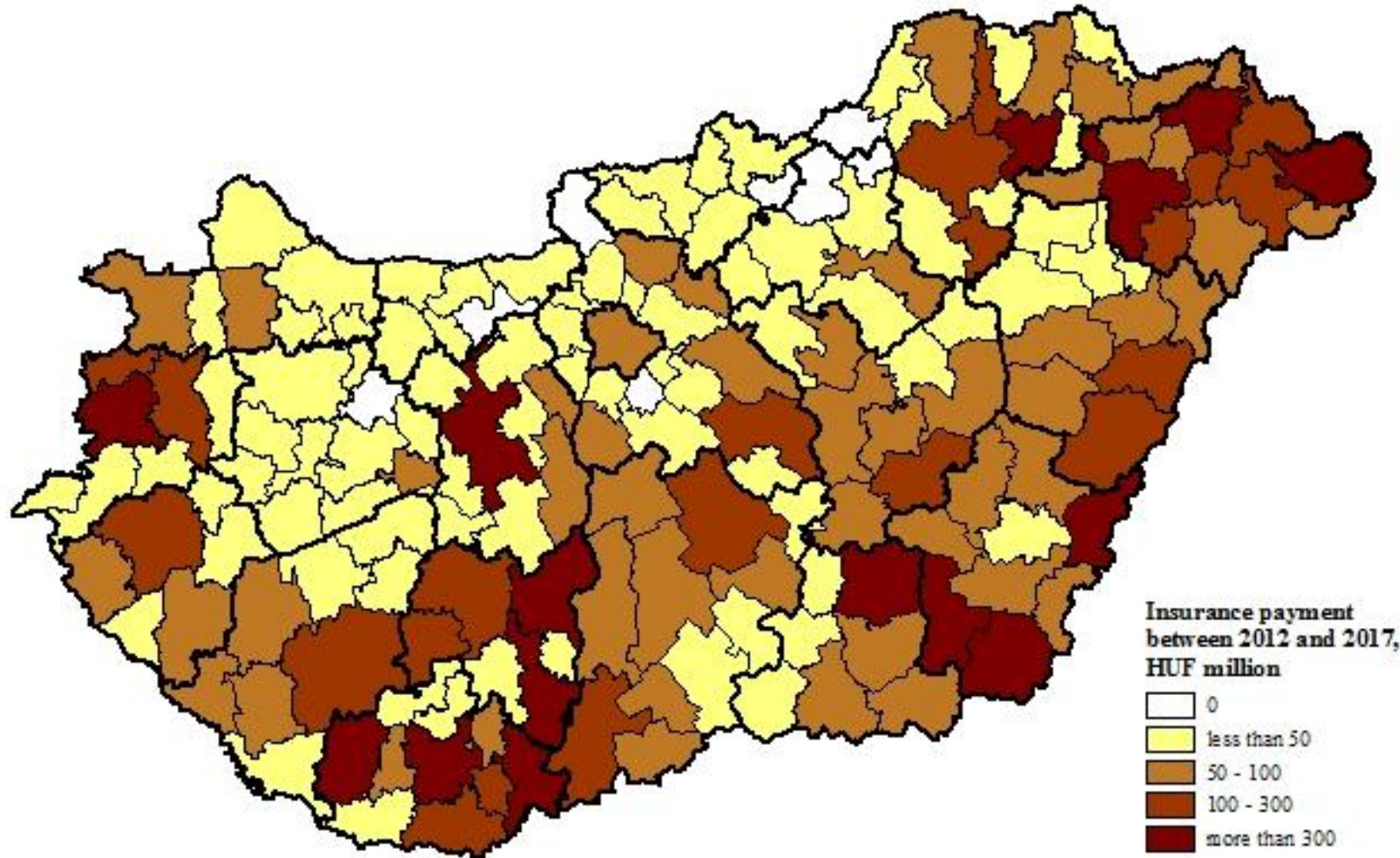
- There is a sharper increase because of unfavourable weather conditions

Compensation by risks (2012 and 2017)



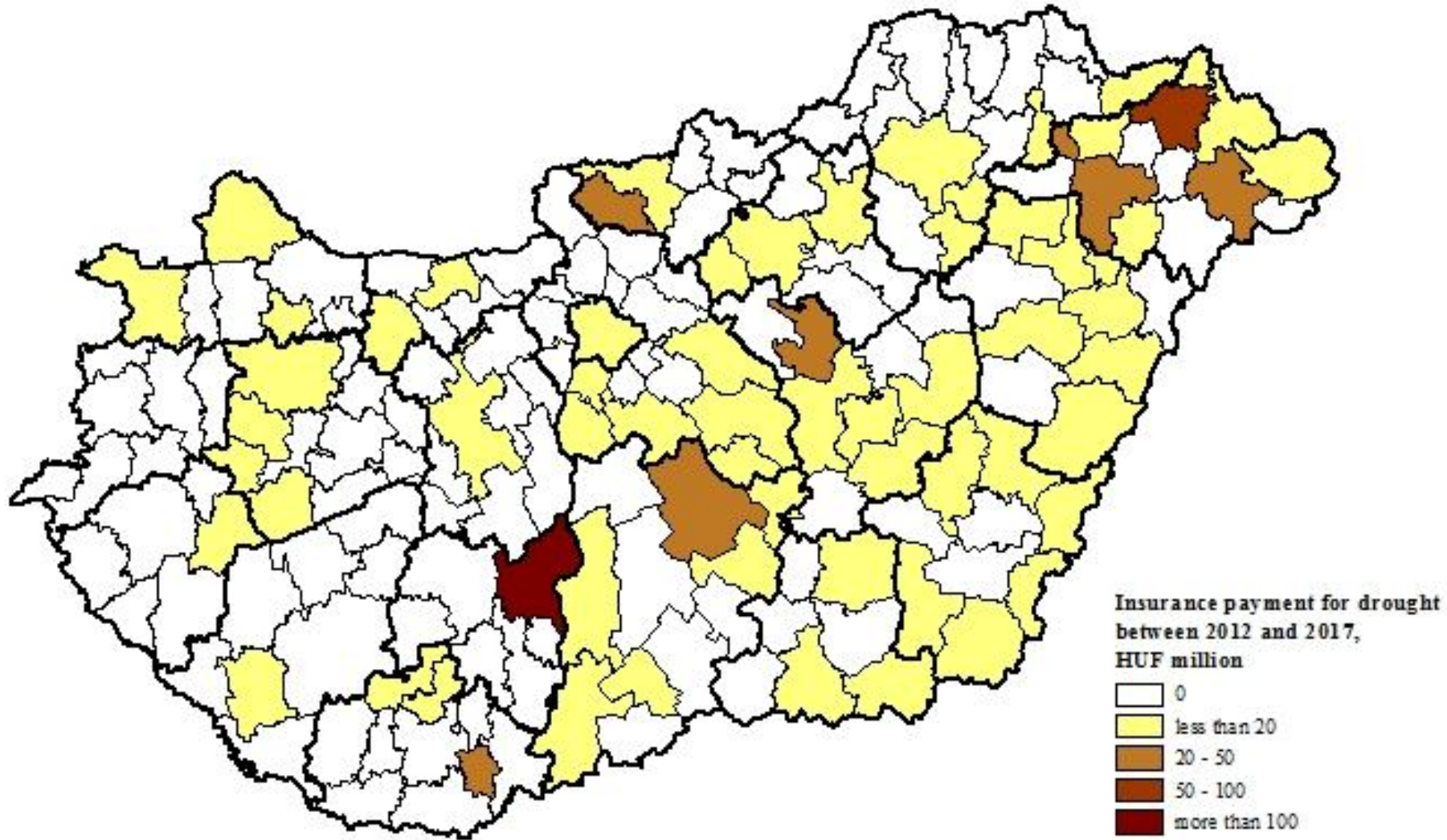
- Most of the losses were caused by hail
- Spring frost is the second one
- **Drought is only the 4.!**

Compensation by insurances (2012 to 2017)

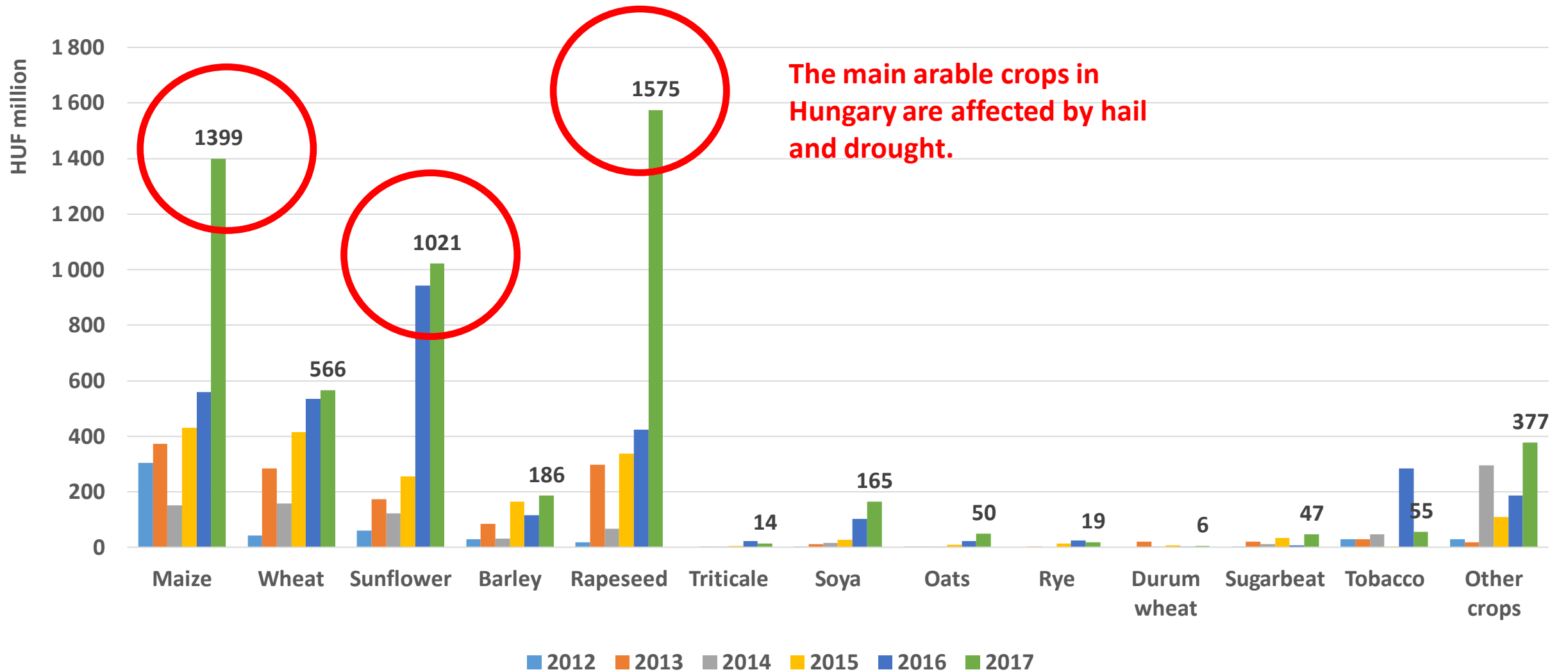


- Szabolcs-Szatmár-Bereg county, Southern part of Great Plain, and southern part of Transdanubian region are the most damaged areas

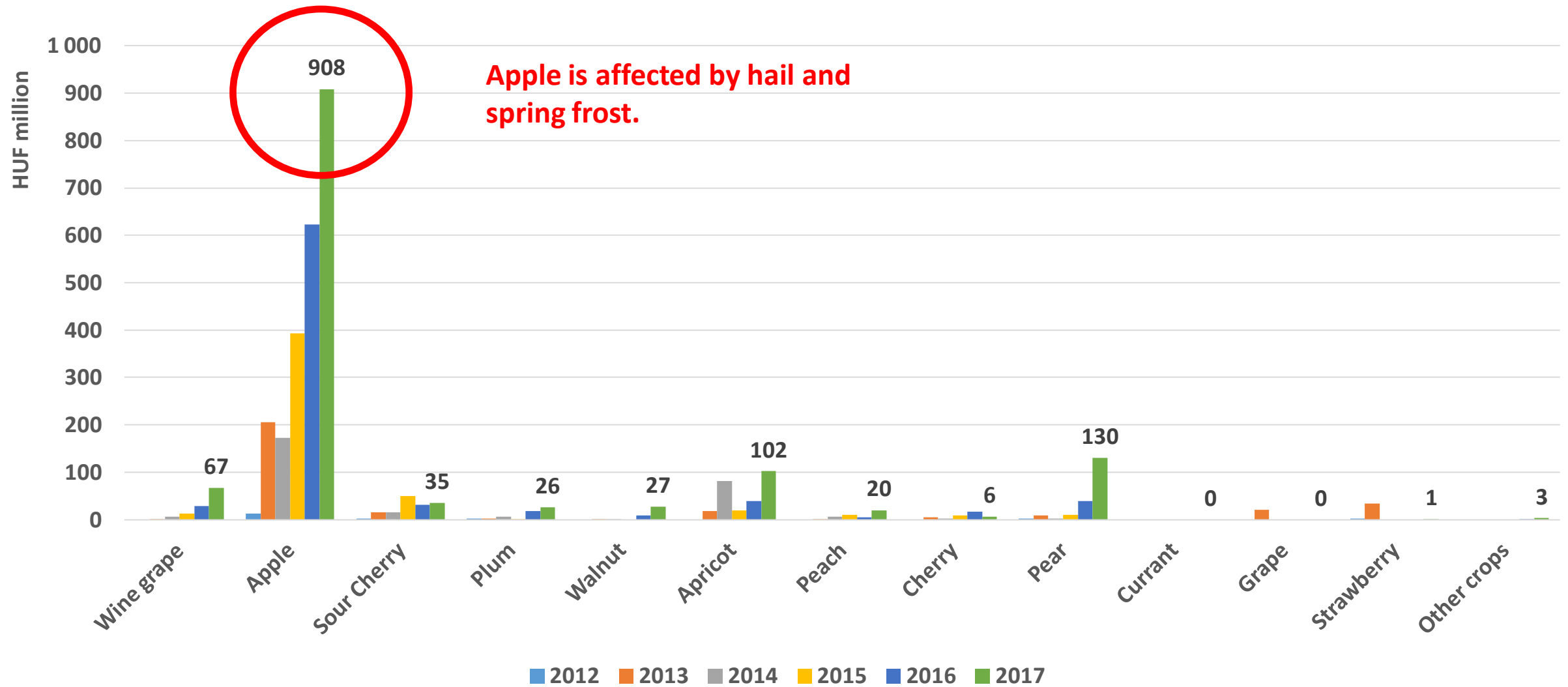
Compensation for drought (2012 to 2017)



Compensations for arable crops



Compensation for fruits



Problems with measuring losses caused by drought in the MKR

- Definition: 30 consecutive days, below 10 mm rain, OR 30 consecutive days, below 25 mm rain, daily maximum temperature above 31 C⁰ for 15 consecutive days
- Threshold: 30/50% threshold in the Pillar 1. and 2.
- Penetration: voluntary participation in the Pillar 1. for small farmers, voluntary for all farmers in the Pillar 2.

Why?

Because drought is a normal climatic event, we have it in most of years – this is not insurable – what is insurable is catastrophic drought – above 30/50% yield loss – as it is rare enough.

Thank you for your attention!